



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Mark WEBSTER, *et al.*

Art Unit: 2665

Serial No. 09/586,571

Examiner: R. Shand

Filed: June 2, 2000

Attorney 56162.000547
Docket No.

For: DUAL PACKET CONFIGURATION FOR
WIRELESS COMMUNICATIONS

**DECLARATION OF MARK WEBSTER
PURSUANT TO 37 C.F.R. §1.132**

I, Mark A. Webster do hereby declare and state as follows:

- 1) I am a co-inventor of the above-identified patent application (the '571 application).
- 2) I received a Bachelors of Science in electrical engineering in 1980 from the University of Michigan and a Masters of Science in electrical engineering in 1981 from the University of Michigan. I have been employed with Conexant Systems, Inc. as a Senior Scientist in Palm Bay, Florida since June 22, 1981.
- 3) I am a co-inventor on U.S. Patent 6,678,310 to Andren *et al.* (the Andren patent). The Andren patent describes a demodulator for a radio transceiver that is primarily concerned with mitigating multi-path interference – that is, interference caused by copies of the same signal arriving at different instants in time. The specification of the Andren patent is written in the context of demodulating signals that are modulated according to a single modulation technique, such as the serial demodulation technique spread spectrum phase shift key (PSK) demodulation. Although the specification of the Andren patent focuses on mitigation of multi-path interference in BPSK and QAM modulation environments, at column 20 there is a general reference to orthogonal frequency division multiplexing (OFDM) otherwise known as discrete multi-tone

(DMT). This reference to OFDM simply describes another exemplary technique in which mitigation of multi-path interference may be achieved.

4) The Andren patent does not disclose nor suggest combining modulation techniques and certainly not using OFDM in combination with another modulation technique on different portions of a packet. Further, the invention of the Andren patent was not conceived as, nor does the patent disclose, a transmission scheme in which a portion of a packet is modulated according to serial modulation and another portion of a packet is modulated according to parallel modulation or, more specifically, OFDM. Rather, OFDM is merely mentioned in the context of explaining how other waveforms deal with multi-path mitigation. For example, the Andren patent states that in OFDM this is accomplished by making symbols much longer in duration than the multi-path spread. Nowhere in the Andren patent is there suggestion of modulating first and second portions of a packet according to serial modulation and OFDM-based modulation respectively. Whereas the invention in the '571 application facilitates interoperability of different wireless systems, the Andren patent concerns ways to mitigate multi-path interference due to copies of signals coming from the same device.

5) As noted in Paragraph 1, I am also a co-inventor of the '571 application. Various embodiments of the '571 application are directed to a novel wireless waveform that allows wireless devices that transmit using serial modulated waveforms and devices that transmit using parallel modulated waveforms (i.e., OFDM) to co-exist in the same wireless space. The invention of the '571 application provides a novel packet modulation scheme whereby packets for higher data rate (OFDM-modulated) devices and packets for lower data rate (serial modulation-based) devices may be handled by such devices in the same space without interference. For the reasons discussed in Paragraph 4, the Andren patent does not disclose nor suggest the invention as claimed in the '571 application. Accordingly, I respectfully submit that the subject matter of the current claims of the '571 application are not anticipated by the Andren patent.

6) I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Nov. 9, 2005
Date

Mark A. Webster
Mark A. Webster

State of Florida
County of Brevard

Cynthia J. Ekman
Cynthia J. Ekman

commission expires: 4/7/09

